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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/807,634	04/16/2001	John Hugh Kerr	19345-86780	2321

28886 7590 07/02/2002

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DETROIT, MI 48226

EXAMINER

WILLIAMS, ERIC M

ART UNIT	PAPER NUMBER
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3681

DATE MAILED: 07/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/807,634

Applicant(s)

KERR, JOHN HUGH

Examiner

Eric M Williams

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-35 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

The applicant must select either Group I, Group II, or Group III as delineated below.

1. Group I (combination), claim(s) 1-26, drawn to the invention of an Infinitely Variable Transmission
2. Group II (subcombination), claim(s) 27-31, drawn to an Actuator.
3. Group III, claim(s) 32-35, drawn to the invention of a Method For Defining Tooth Flanks on Pairs of Meshing Non-Circular Gears.

The Inventions, Group I and Group II, are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination, The Infinitely Variable Transmission, as claimed does not require the particulars of the subcombination, the Actuator, as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the actuator, which serves to couple and uncouple gear sets to a shaft, could be employed in another system such as a transfer case. A transfer case, for example, has parallel shafts similar to the applicants infinitely variable transmission and the actuator could be used to connect gear sets to one of the shafts.

Group III is a separate invention because it is a method for defining tooth flanks on pairs of meshing non-circular gears. Tooth flanks on meshing non-circular gears is a concept used in multiple areas and is not solely applicable to the invention of an Infinitely Variable Transmission as disclosed by the applicant. Therefore, Group III, is a distinct invention.

The application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Depending upon which Group (I, II, or III) is chosen, below are the species the applicant must select from:

I. If Group I is elected then the applicant must select one of the following species:

Figures 2, 2a; 2c; 2f; 2g; or 2h

If Group I is selected, the applicant must **also** select only one from each of the two following groups:

i.) Figures 3a-d; 4a-c; 5a,b; 6, 6a; 6b; 7a-c; 8, 8a; 9, 9a; or 10, 10a

ii.) Figures 11; 11a; 11b; 13-13b; or 14

II. If Group II is elected then the applicant must select one of the following species:

Figures 3a-d; 4a-c; 5a,b; 6, 6a; 6b; 7a-c; 8, 8a; 9, 9a; or 10, 10a

III. If Group III is elected there is one species:

Figures 15-15i

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Art Unit: 3681

The claims are deemed to correspond to the species listed above in the following manner:

### **Group I**

Generic claims: 1-9, 25, and 26

Claims 10 and 11: Figure 11 or 11a,b and any Figure 2,2a; 2c; 2f; 2g; or 2h

Claim 12: Figure 12 and any Figure 2,2a; 2c; 2f; 2g; or 2h

Claim 13: Figure 13-13b and any Figure 2,2a; 2c; 2f; 2g; or 2h

Claims 14 and 15: Figure 14 and any Figure 2,2a; 2c; 2f; 2g; or 2h

Claim 20: Figure 2a, 2c, or 2f and any Figure 2,2a; 2c; 2f; 2g; or 2h

Claim 21: Figure 2c, 2f, 2 and any Figure 2,2a; 2c; 2f; 2g; or 2h g, 2h

Claim 22: Figure 2a and any Figure 2,2a; 2c; 2f; 2g; or 2h

Claim 23: Figure 2g or 2h and any Figure 2,2a; 2c; 2f; 2g; or 2h

Claim 24: Figure 2h and any Figure 2,2a; 2c; 2f; 2g; or 2h

### **Group II**

Claims 27-29: Figures 3a-d; 4a-c; 5a,b; 6,6a; 6b; 7a-c; 8,8a; 9,9a; or 10,10a

Claims 30-31: Figure 7-7c; 8,8a,9,9a; 10,10a

### **Group III**

Claims 32-35: Figures 15-15i

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special inventive technical features for the following reasons:

The invention of a infinitely variable transmission lacks the common inventive concept (i.e. the prior art reference L. Beschke Patent No. 2,239,313 discloses an infinitely variable transmission with an input member M, a rotational output member R, a pair of variable velocity-ratio gear sets 1-1', 3-3' and 2-2', 4-4' a multi-directional coupling e1,e2,e3, e4 a phase angle variator L, P, m1, m2, and an actuator), therefore the common concept is not inventive and the lack of unity holding is deemed proper.

Art Unit: 3681

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M Williams whose telephone number is 703-305-0607. The examiner can normally be reached on Mon. – Fri. from 7:30am-5:00pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.



EMW

July 1, 2002

  
**CHARLES A. MARMOR**  
**SUPERVISORY PATENT EXAMINER**  
**ART UNIT 3681**